

## **New Test**

NOTIFICATION DATE: JUNE 2, 2014 EFFECTIVE DATE: JUNE 30, 2014

# EPILEPSY, AUTOIMMUNE EVALUATION, SPINAL FLUID Test ID: EPIEC

**USEFUL FOR**: Investigating new onset cryptogenic epilepsy with incomplete seizure control and duration of <2 years.

Investigating new onset cryptogenic epilepsy plus 1 or more of the following accompaniments:

- Psychiatric accompaniments (psychosis, hallucinations)
- Movement disorder (myoclonus, tremor, dyskinesias)
- Headache
- Cognitive impairment/encephalopathy
- Autoimmune stigmata (personal history or family history or signs of diabetes mellitus, thyroid disorder, vitiligo, premature graying of hair, myasthenia gravis, rheumatoid arthritis, systemic lupus erythematosus, idiopathic adrenocortical insufficiency) or "multiple sclerosis"
- History of cancer
- Smoking history (20+ pack years) or other cancer risk factors
- Investigating seizures occurring within the context of a subacute multifocal neurological disorder without -obvious cause, especially in a patient with past or family history of cancer

#### **Profile Information**

Test ID	Reporting Name	Available Separately	Always Performed
AEPCI	Epilepsy, Interpretation, CSF	No	Yes
ANN1C	Anti-Neuronal Nuclear Ab, Type 1, CSF	No	Yes
ANN2C	Anti-Neuronal Nuclear Ab, Type 2, CSF	No	Yes
ANN3C	Anti-Neuronal Nuclear Ab, Type 3, CSF	No	Yes
AGN1C	Anti-Glial Nuclear Ab, Type 1, CSF	No	Yes
PCA2C	Purkinje Cell Cytoplasmic Ab Type 2, CSF	No	Yes
PCTRC	Purkinje Cell Cytoplasmc Ab Type Tr, CSF	No	Yes
AMPHC	Amphiphysin Ab, CSF	No	Yes
CRMC	CRMP-5-IgG, CSF	No	Yes
AMPCC	AMPA-R Ab CBA, CSF	No	Yes
GABCC	GABA-B-R Ab CBA, CSF	No	Yes
NMDCC	NMDA-R Ab CBA, CSF	No	Yes
GD65C	GAD65 Ab Assay, CSF	Yes	Yes
VGKCC	VGKC-complex Ab IPA, CSF	No	Yes

## **Reflex Tests**

Test ID	Reporting Name	Available Separately	Always Performed
WBNC	Paraneoplas Autoantibody WBlot, CSF	No	No
CRMWC	CRMP-5-IgG Western Blot, CSF	No	No
ABLTC	Amphiphysin Western Blot, CSF	No	No
NMOCC	NMO/AQP4-IgG CBA, CSF	Yes	No
AMPIC	AMPA-R Ab IF Titer Assay, CSF	No	No

GABIC	GABA-B-R Ab IF Titer Assay, CSF	No	No
NMDIC	NMDA-R Ab IF Titer Assay, CSF	No	No
PCA1C	Purkinje Cell Cytoplasmic Ab Type 1	No	No

## **Testing Algorithm**

If indirect immunofluorescence assay (IFA) (ANN1C, ANN2C, ANN3C, PCA2C, PCTRC, AMPHC, CRMC, AGN1C) is indeterminate, then paraneoplastic autoantibody Western blot is performed at an additional charge.

If client requests or if IFA patterns suggest CRMP-5-IgG, then CRMP-5-IgG Western blot is performed at an additional charge.

If IFA patterns suggest amphiphysin antibody, then amphiphysin Western blot is performed at an additional charge.

If IFA pattern suggest NMO/AQP4-IgG, then NMO/AQP4-IgG CBA is performed at an additional charge.

If IFA pattern suggest AMPA-Receptor antibody and AMPA-Receptor antibody CBA is positive, then AMPA-Receptor antibody IF titer assay is performed at an additional charge.

If IFA pattern suggest GABA-B-Receptor antibody and GABA-B-R Receptor Ab antibody is positive, then GABA-B-R Receptor Ab antibody IF titer assay is performed at an additional charge.

If IFA pattern suggest NMDA-Receptor antibody and NMDA-Receptor Ab antibody CBA is positive, then NMDA-Receptor Ab antibody IF titer assay is performed at an additional charge.

If IFA patterns suggest PCA-1, then Purkinje Cell Cytoplasmic antibody Type 1 assay is performed at an additional charge.

**METHOD**: Indirect Immunofluorescence Assay (IFA); Radioimmunoassay (RIA); Cell Binding Assay (CBA); Western Blot (WB)

#### REFERENCE VALUES:

REFERENCE VILLEED.	
Anti-neuronal Nuclear Ab, Type 1 (ANNA-1), CSF	< 1:2
Anti-neuronal Nuclear Ab, Type 2 (ANNA-2), CSF	< 1:2
Anti-neuronal Nuclear Ab, Type 3 (ANNA-3), CSF	< 1:2
Anti-Glial/Neuronal Nuclear Ab, Type 1 (AGNA-1), CSF	< 1:2
Purkinje Cell Cytoplasmic Ab, Type1 (PCA-1), CSF	< 1:2
Purkinje Cell Cytoplasmic Ab, Type 2 (PCA-2), CSF	< 1:2
Purkinje Cell Cytoplasmic Ab, Type Tr (PCA-Tr), CSF	< 1:2
Amphiphysin Ab, CSF	< 1:2
CRMP-5-IgG Ab, CSF	< 1:2
Paraneoplastic Western Blot, CSF	Negative
CRMP-5-IgG Western Blot, CSF	Negative
Amphiphysin Western Blot, CSF	Negative
Glutamic Acid Decarboxylase-65 (GAD65), CSF	$\leq 0.02 \text{ nmol/L}$
VGKC-complex Ab IPA, CSF	$\leq 0.02 \text{ nmol/L}$
N-Methyl-D-aspartate receptor (NMDA-R), CSF	CBA: Negative
	IFA: < 1:2
2-amino-3-(5-methyl-3-oxo-1,2- oxazol-4-yl) propanoic	CBA: Negative
acid receptor (AMPA-R), CSF	IFA: < 1:2
Gamma-Amino Butyric acid-type B receptor (GABA-B-R), CSF	CBA: Negative
	IFA: < 1:2
NMO/AQP4-IgG, CSF	Negative
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## **SPECIMEN REQUIREMENTS:**

Container/Tube: Plastic, screw-top tube

**Specimen Volume:** 4 mL CSF **Minimum Volume:** 2 mL CSF

Additional Information: Include name, phone number, mailing address, and e-mail

address (if applicable) of ordering physician.

## **SPECIMEN STABILITY INFORMATION:**

Specimen Type	Temperature	Time
CSF	Refrigerated (preferred)	28 days
	Ambient	72 hours
	Frozen	28 days

## **CPT CODE**:

86256-AGNA-1

86256-Amphiphysin

86256-ANNA-1

86256-ANNA-2

86256-ANNA-3

86256-CRMP-5-IgG

86256-PCA-2

86256-PCA-Tr

86255-AMPCC CBA

86255-GABCC CBA

86255-NMDCC CBA

86341-GAD65

83519-VGKC

84182-Amphiphysin Western blot (if appropriate)

84182-CRMP-5 Western blot confirmation (if appropriate)

84182-Paraneoplastic autoantibody Western blot confirmation (if appropriate)

86255-NMO/AQP4-IgG CBA (if appropriate)

86256-PCA-1 (if appropriate)

86256-AMPIC (if appropriate)

86256-GABIC (if appropriate)

86256-NMDIC (if appropriate)

<b>DAY(S) SET UP</b> : Monday through Sunday	<b>ANALYTIC TIME</b> : 3 days if negative/5 days if
	positive

QUESTIONS: Contact your Mayo Medical Laboratories' Regional Manager or Steven Monson, MML Laboratory Technologist Resource Coordinator Telephone: 800-533-1710